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10/608,264	06/30/2003	Sandrine Decoster	239284US0	1398
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OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			EXAMINER ARNOLD, ERNST V	
			ART UNIT	PAPER NUMBER
			1616	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/608,264

Applicant(s)

DECOSTER ET AL.

Examiner

ERNST V. ARNOLD

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 May 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7, 9-12, 14, 15 and 17-36 is/are pending in the application.
- 4a) Of the above claim(s) 34-36 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7, 9-12, 14, 15, 17-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/888)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claims 34-36 have been withdrawn. Claims 8, 13 and 16 have been cancelled.
Claims 1-7, 9-12, 14, 15 and 17-33 are under examination.

Withdrawn rejections:

Applicant's amendments and arguments filed 5/28/08 are acknowledged and have been fully considered. Any rejection and/or objection not specifically addressed below is herein withdrawn.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-7, 9-12, 14, 15 and 17-33 remain/are rejected under 35 U.S.C. 103(a) as being unpatentable over Janchitraponvej et al. (US 5,556,615) in view of Jahedshoar et al. (WO 01/28506) and Dupuis (US 6,214,326) and Jacquet et al. (US 4,390,522).

Please note that the Examiner is relying on WO 01/28506 for the rejection and using the English language equivalent US 6,602,494 for translation.

Applicant claims a composition comprising: water; at least one silicone comprising ammonium groups; at least one cationic surfactant; at least two different cationic polymers; and at least one nonionic and nonassociative thickening polymer wherein quaternium-80, cetyltrimethylammonium chloride, polyquaternium-10, polyquaternium-44 and hydroxypropylcellulose are components in the composition wherein at least one of the cationic polymers is a cationic polysaccharide or a quaternary polymer of vinylpyrrolidone and of vinylimidazole.

Determination of the scope and content of the prior art

(MPEP 2141.01)

Janchitraponvej et al. teach hair conditioning compositions for treating hair comprising a 0.1% to 5% silicone compound such as Quaternium 80, and provide an example with a silicone compound, 1.5% quaternary ammonium compound (a cationic surfactant), nonionic surfactant, alkylene glycols, 1.15% thickener (hydroxyethylcellulose), cyclomethicone (additional conditioner), protein-based conditioner, coupling surfactant, fragrance and water (Abstract; column 15, example 5 and claims 1, 8 and 9). Janchitraponvej et al. teach quaternary ammonium compounds

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for inclusion in the composition (Column 12, lines 25-59) and nonionic surfactants such as polyoxyethylene (20) oleyl ether and N-alkylated-2-pyrrolidones (Column 13, lines 46-67). Janchitraponvej et al. teach quaternary ammonium compounds having one or two long chain alkyl groups containing from 8 to about 18 carbon atoms and the remaining two to three substitutes of the quaternary nitrogen of the quaternary ammonium compound can be short chain alkyl such as methyl and provide a number of examples of cetyl ammonium chlorides (Column 12, lines 25-59). Janchitraponvej et al. teach that an oil-soluble water dispersible quaternary ammonium compound either alone or in combination with a water-soluble quaternary ammonium compound can be used in the composition (Column 12, lines 40-44). Janchitraponvej et al. teach the addition of an optional nonionic thickener such as hydroxypropylcellulose, guar gum, and gum Arabic, for example, at 0% to about 3% by weight (Column 14, lines 1-10). Janchitraponvej et al. teach that the hair is rinsed with water after contacting with the conditioning composition (Claims 14 and 15).

Jahedshoar et al. teaches cetyltrimethylammonium chloride, polyquaternium-10 and polyquaternium-44 in hair conditioner compositions (Column 10, examples 1 and 2 and Column 11, example 3 and 6). Jahedshoar et al. also teaches Quaternium 80 as a suitable silicone polymer with two terminal quaternary ammonium groups for use in the composition (Column 8, lines 11-37). Jahedshoar et al. teach cetyltrimethylammonium chloride as a cationic surfactant (Column 4, lines 12-28). Jahedshoar et al. teach cationic polymers for use in the composition including **pyridinium and imidazolium or**

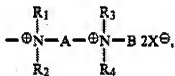
quarternary pyrrolidones, copolymers of polyvinylpyrrolidone, for example (Column 5, line 10 through column 8, line 37).

Dupuis teaches cosmetic compositions for treating keratinous material containing cationic polymers and acrylic terpolymers and specifically point out **quaternized vinylimidazole and vinylpyrrolidone** and in claim 11 point out **cationic polysaccharides** (Abstract and claim 11). Dupuis teaches that the thickening and/or gelling polymers combined with cationic polymers produces cosmetic formulations which are not pasty or greasy and which give hair good properties of softness, feel and easy disentangling (Column 1, lines 36-44). The thickening and/or gelling polymers are terpolymers with a) methacrylic acid or acrylic acid; b) methacrylates, acrylates such as methyl, ethyl and butyl acrylate, and nonionic surfactants, and c) nonionic urethane monomer (Column 1, line 59 bridging Column 2, lines 63). Dupuis teaches cationic polymers of silicone, polyamines, polyaminoamides and quaternary polyammonium types as known products (Column 3, lines 52-55). Dupuis teaches quaternized vinyl pyrrolidone dialkylaminoalkyl acrylate or methacrylate copolymers, cellulose derivatives containing quaternary ammonium groups, **dimethyldiallylammonium salts of hydroxypropylcellulose, cationic polysaccharides** and in particular guar gums, polymers consisting of piperaziny units, water soluble polyaminoamides, methyldiallylamne or dimethyldiallyl-ammonium cyclopolymers, polyquaternary ammonium polymers of formula VIII found in column 10, lines 25-30, homopolymers or copolymers derived from acrylic or methacrylic acid, **quaternary vinylpyrrolidone and vinyl-imidazole polymers**, polyamines, methacryloyloxyethyltrimethylammonium

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chloride crosslinked polymers, condensates of polyamines and epichlorohydrin, and chitin derivatives, for example (Column 3, line 56 through column 12, line 20 and claims 1 and 11). Dupuis teaches that when the composition is a leave-in type it comprises one or more of quaternized or non-quaternized vinylpyrrolidone/dialkylaminoalkyl acrylate or methacrylate copolymers or **quaternary vinylpyrrolidone or vinylimidazole polymers** (Claim 12). Dupuis teaches the composition as a rinse-out or leave in hair product (Claim 18).

Jacquet et al. teach the diquaternary ammonium cationic polymer, which can be present from 0.1% to 5% in shampoos (Column 8, lines 45-48).



Jacquet et al. teach emulsifiers such as oleyl alcohol polyoxyethylenated with 10 to 30 moles of ethylene oxide, for example (Column 7, lines 24-27). Jacquet et al. teach nonionic detergents such as ethers of polyethoxylated fatty alcohols (Column 7, lines 65-67). Jacquet et al. teach the further addition of cosmetic resins such as **polyvinylpyrrolidone and copolymers of polyvinylpyrrolidone** (Column 8, lines 54-61). Jacquet et al. teach cationic detergents such as long-chain quaternary ammoniums, alkylpyridinium salts, polyether fatty amines, or imidazoline derivatives (Column 7, lines 62-64). Jacquet et al. teach lauryltrimethylammonium chloride as a cationic ammonium compound which renders obvious other alkyltrimethylammonium salts present in the composition from about 5% to about 10% by weight of the

composition in total (Column 12, lines 23-25 and 49). Jacquet et al. teach the addition of perfumes, dyes, thickening agents, foam stabilizing agents and softening agents (Column 8, lines 40-44).

Ascertainment of the difference between the prior art and the claims

(MPEP 2141.02)

1. Janchitraponvej et al. do not expressly teach the addition of cetyltrimethylammonium chloride, polyquaternium-10, and polyquaternium-44 to the hair care composition and wherein at least one of the cationic polymers is a cationic polysaccharide or a quaternary polymer of vinylpyrrolidone and of vinylimidazole. This deficiency in Janchitraponvej is cured by the teachings of Jacquet et al., Dupois and Jahedshoar et al.

2. Janchitraponvej et al. do not expressly teach the addition of the quaternary ammonium salts of instant claim 10. This deficiency in Janchitraponvej is cured by the teachings of Jacquet et al., Dupois and Jahedshoar et al.

3. Janchitraponvej et al. do not expressly teach the addition of cationic polymers of instant claims 14-20. This deficiency in Janchitraponvej is cured by the teachings of Jacquet et al. and Dupuis.

4. Janchitraponvej et al. do not expressly teach the addition of a thickening agent comprising vinylpyrrolidone homopolymer. This deficiency in Janchitraponvej is cured by the teachings of Dupuis.

Finding of prima facie obviousness

Rational and Motivation (MPEP 2142-2143)

1. It would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to add cetyltrimethylammonium chloride, polyquaternium-10, and polyquaternium-44 or wherein at least one of the cationic polymers is a cationic polysaccharide or a quaternary polymer of vinylpyrrolidone and of vinylimidazole to the composition Janchitraponvej et al. and produce the instant invention.

One of ordinary skill in the art would have been motivated to do this because:1) Janchitraponvej et al. teach one of ordinary skill in the art to add other quaternary ammonium compound (column 12, lines 25-29), which embrace cetyltrimethylammonium chloride and cationic polysaccharide or a quaternary polymer of vinylpyrrolidone and of vinylimidazole, and Jahedshoar et al. teach that polyquaternium-10, and polyquaternium-44 are useful in hair conditioner compositions and Dupois and Jacquet et al. teach the other quaternary ammonium compounds and 2) "It is prima facie obvious to combine two compositions each of which is taught by the prior art to be useful for the same purpose, in order to form a third composition to be used for the very same purpose.... [T]he idea of combining them flows logically from their having been individually taught in the prior art." In re Kerkhoven, 626 F.2d 846, 850, 205 USPQ 1069, 1072 (CCPA 1980).

2. It would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to add quaternary ammonium salt of imidazoline to the

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composition of Janchitraponvej et al. as suggested by Jahedshoar et al , Jacquet et al. and Dupois and produce the instant invention.

One of ordinary skill in the art would have been motivated to do this because:1) Janchitraponvej et al. teaches making new cationic compositions and 2) "It is prima facie obvious to combine two compositions each of which is taught by the prior art to be useful for the same purpose, in order to form a third composition to be used for the very same purpose.... [T]he idea of combining them flows logically from their having been individually taught in the prior art." In re Kerkhoven, 626 F.2d 846, 850, 205 USPQ 1069, 1072 (CCPA 1980). The cited reference teach ammonium salts as described in detail above and, for example, Dupuis teaches quaternary vinylimidazole polymers which renders obvious the quaternary ammonium salt of imidazoline to one of ordinary skill in the art.

3. It would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to add the cationic polymers taught by Dupuis and Jacquet et al. in the composition of Janchitraponvej et al. and produce the instant invention.

One of ordinary skill in the art would have been motivated to do this because: 1) Janchitraponvej et al. teaches making new cationic compositions and 2) "It is prima facie obvious to combine two compositions each of which is taught by the prior art to be useful for the same purpose, in order to form a third composition to be used for the very same purpose.... [T]he idea of combining them flows logically from their having been individually taught in the prior art." In re Kerkhoven, 626 F.2d 846,

850, 205 USPQ 1069, 1072 (CCPA 1980). It is the Examiner's position that the polymer renders obvious the quaternary monomer.

4. It would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to add the thickening agents taught by Dupuis in the composition of Janchitraponvej et al. and produce the instant invention.

One of ordinary skill in the art would have been motivated to do this because Dupuis teaches that the thickening and/or gelling polymers combined with cationic polymers produces cosmetic formulations which are not pasty or greasy and which give hair good properties of softness, feel and easy disentangling (Column 1, lines 36-44).

A reference is good not only for what it teaches by direct anticipation but also for what one of ordinary skill in the art might reasonably infer from the teachings. (*In re Opprecht* 12 USPQ 2d 1235, 1236 (Fed Cir. 1989); *In re Bode* 193 USPQ 12 (CCPA) 1976).

In light of the forgoing discussion, the Examiner concludes that the subject matter defined by the instant claims would have been obvious within the meaning of 35 USC 103(a).

From the teachings of the references, it is apparent that one of ordinary skill in the art would have had a reasonable expectation of success in producing the claimed invention. Therefore, the invention as a whole was *prima facie* obvious to one of ordinary skill in the art at the time the invention was made, as evidenced by the references, especially in the absence of evidence to the contrary.

Response to arguments:

Applicant asserts that that no prima facie case of obviousness has been set forth and that Janchitraponvej neither teaches nor suggests the claimed invention for at least the reason that it does not disclose adding any cationic polymers to his composition let alone at least two cationic polymers. Respectfully, the Examiner cannot agree. The Examiner has pointed to Example 5 in column 15 of Janchitraponvej as one embodiment on the invention of Janchitraponvej. Clearly, the composition contains: 1) silicone compound; 2) quaternary ammonium compound and 3) protein based conditioner which is a quaternized protein hence cationic polymer. Claim 1 of Janchitraponvej directs one to use silicone compounds having at least two quaternary ammonium moieties. It is not a stretch for one of ordinary skill in the art to substitute Quaternium 80 into the example especially when Janchitraponvej suggests doing so.

Applicant asserts that Janchitraponvej neither teaches nor suggests adding cationic polymers to his compositions even when discussing optional ingredients. Respectfully, the Examiner cannot agree. Janchitraponvej not only suggests including other quaternary ammonium compounds, such as oil-soluble water dispersible quaternary ammonium compounds either alone or in combination with a water soluble quaternary ammonium compound, in the clear conditioning composition (column 12, lines 27-29 and 40-44) but also discusses cationic polymers in column 12, lines 54-59 (MACKPRO MLW) and furthermore uses such a polymer in a composition (See example 5, lines 34-35). Thus, addition of a cationic polymer is not an impermissible modification of Janchitraponvej's composition because the addition of a cationic polymer is taught by Janchitraponvej.

Applicant asserts that the results in the 1.132 declaration filed on 2/16/07 are superior results. The Examiner cannot agree. The results are merely a difference in degree and not in kind as argued in the last Office Action. The beneficial results support a conclusion of obviousness because, based on the teaching of the primary reference, addition of cationic compounds can improve conditioning compositions. "Expected beneficial results are evidence of obviousness of a claimed invention, just as unexpected results are evidence of unobviousness thereof." *In re Gershon*, 372 F.2d 535, 538, 152 USPQ 602, 604 (CCPA 1967).

Applicant's arguments and showing are not sufficient to overcome the rejections of record. The Examiner maintains the rejections.

Conclusion

No claims are allowed.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ernst V. Arnold whose telephone number is 571-272-8509. The examiner can normally be reached on M-F (6:15 am-3:45 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Johann Richter can be reached on 571-272-0646. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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